



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/801,656	03/17/2004	Larry M. Conrad	031920-0048	1698

7590 11/09/2004

MCDERMOTT, WILL & EMERY
Suite 400
18191 Von Karman Ave.
Irvine, CA 92612-0187

EXAMINER

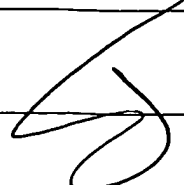
NOVOSAD, CHRISTOPHER J

ART UNIT	PAPER NUMBER
----------	--------------

3671

DATE MAILED: 11/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/801,656	Applicant(s) CONRAD ET AL.	
	Examiner Christopher J. Novosad	Art Unit 3671	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>06/29/04</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 5-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 5, line 8, the recitation "the said" is redundant and should be corrected to either -the-- or --said--.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 5, 8, 9, 11, 15, 16 and 18-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Barnes.

With respect to claim 1, Barnes shows a planter unit 10 (Fig. 2) comprising:

a seed dispensing tube 29 (Fig. 2) for dispensing seeds (col. 4, line 46), including an upper opening (unnumbered) for receiving a seed (col. 4, line 46) and a lower opening (unnumbered) for dispensing the seed (col. 4, line 46);

Art Unit: 3671

a brush 36 covering the lower opening (unnumbered); and

a granule tube 166 connected to the seed dispensing tube 29 at a location above the lower opening (unnumbered), for dispensing chemical granules (col. 5, line 30) into the seed dispensing tube 29,

wherein the brush 36 holds chemical granules (col. 5, line 30) within the seed dispensing tube 29 such that chemical granules (col. 5, line 30) accumulate within the seed dispensing tube 29, and

wherein the brush 36 allows a seed (col. 4, line 46) and accumulated chemical granules (col. 5, line 30) to pass through the lower opening (unnumbered) when a seed (col. 4, line 46) is dispensed via the seed dispensing tube 29.

As to claim 5, Barnes shows a seed and chemical granule dispensing system (Fig. 2) comprising:

a seed hopper 26 for storing seeds (col. 4, line 46);

a granule storage hopper 156 for storing chemical granules (col. 5, line 30); and

a planter unit 10 (Fig. 2) comprising a seed dispensing tube 29 for dispensing seeds (col. 4, line 46) stored in the seed hopper 26, including an upper opening (unnumbered) for receiving a seed (col. 4, line 46) and a lower opening (unnumbered) for dispensing the seed (col. 4, line 46), a brush 36 covering the lower opening (unnumbered), and a granule tube 166 for dispensing chemical granules (col. 5, line 30) stored in the granule storage hopper 156 into the seed dispensing tube 29, connected to the seed dispensing tube 29 at a location above the lower opening (unnumbered),

Art Unit: 3671

wherein the brush 36 holds chemical granules (col. 5, line 30) within the seed dispensing tube 29 such that chemical granules (col. 5, line 30) accumulate within the seed dispensing tube 29, and

wherein the brush 36 allows a seed (col. 4, line 46) and accumulated chemical granules (col. 5, line 30) to pass through the lower opening (unnumbered) when a seed (col. 4, line 46) is dispensed via the seed dispensing tube 29.

With respect to claim 8, the seed hopper 26 is an open container 26.

Regarding claim 9, the seed hopper (unnumbered; rightmost member in Fig. 13) is a closed container (unnumbered; rightmost member in Fig. 13).

As to claim 11, the granule storage hopper 156 is a closed container 156.

With respect to claim 15, the seed hopper 26 further comprises a metering gate 46, wherein the metering gate 46 would necessarily allow one seed (col. 4, line 46) to enter the seed dispensing tube 29 at a time.

Regarding claim 16, the metering gate 46 is mechanically operated.

As to claim 18, the granule storage hopper 156 is placed higher than the seed hopper 26.

With respect to claim 19, Barnes shows a method of dispensing seeds (col. 4, line 46) and chemical granules (col. 5, line 30), comprising the steps of:

dispensing chemical granules (col. 5, line 30) through a granule tube 166 into a seed dispensing tube 29, wherein the granule tube 166 is connected to the seed dispensing tube 29 at a location above a lower opening (unnumbered) of the seed dispensing tube 29, and wherein the lower opening (unnumbered) of the seed dispensing tube 29 is covered with a brush 36; and

dispensing a seed (col. 4, line 46) through the seed dispensing tube 29;

Art Unit: 3671

wherein the brush 36 holds chemical granules (col. 5, line 30) within the seed dispensing tube 29 such that chemical granules (col. 5, line 30) accumulate within the seed dispensing tube 29, and

wherein the brush 36 allows a seed (col. 4, line 46) and accumulated chemical granules (col. 5, line 36) to pass through the lower opening (unnumbered) when the seed (col. 4, line 46) is dispensed via the seed dispensing tube 29.

As to claim 20, one seed (col. 4, line 46) is capable of being dispensed through the seed dispensing tube 29 at a time.

Regarding claim 21, the chemical granules (col. 5, line 30) are dispensed via the granule tube 166 from a granule storage hopper 156.

With respect to claim 22, the seeds (col. 4, line 46) are dispensed via the seed dispensing tube 29 from a seed hopper 26.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 4 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barnes alone.

Barnes shows the planter unit, dispensing system and method as noted.

With respect to claims 3 and 7, the brush 36 of Barnes comprises bristles (unnumbered).

Art Unit: 3671

As to claim 4, the brush 36 of Barnes is mounted inside the seed dispensing tube 29.

The claims distinguish over Barnes in requiring (1) each of the bristles to have a diameter of 0.008 inches (as required in claims 3 and 7) and (2) the brush to be 1.5 inches long and 0.5 inches wide (as required in claim 4).

However, these specific dimensions for the diameter of the bristles and the length and width of the brush merely represent engineering design selections for optimum brush performance.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have utilized the specific dimensions noted for the diameter of the bristles and the length and width of the brush for the reason noted.

Claims 2 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barnes in view of Barry *et al.*

Barnes shows the planter unit, dispensing system and method as noted.

The claims distinguish over Barnes in requiring the seed dispensing tube to include an overflow hole at a location above the lower opening.

Barry *et al.* disclose a seed dispensing tube 31 that further includes an overflow hole 73 (Fig. 2) at a location above the lower opening (unnumbered). Note page 3, paragraph 37.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have utilized the overflow hole 73 (Fig. 2) at a location above the lower opening (unnumbered) of Barry *et al.* in the seed dispensing tube 29 of Barnes to prevent clogging of the dispensing tube.

Art Unit: 3671

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Barnes in view of Savage.

Barnes shows the planter unit, dispensing system and method as noted.

The claims distinguish over Barnes in requiring the granule storage hopper to be an open container.

Savage discloses a granule storage hopper 22 (Fig. 15) that is an open container. Note col. 3, lines 35-39 of Savage.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have utilized an open container as shown in Savage for the granule storage hopper 156 of Barnes for easy operator access.

Claims 12 and 13 rejected under 35 U.S.C. 103(a) as being unpatentable over Barnes in view of Neumeyer.

Barnes shows the planter unit, dispensing system and method as noted.

The claims distinguish over Barnes in requiring (1) the seed hopper and granule storage hopper to comprise a combined two-chambered container (as required in claim 12) and (2) the two-chambered storage container to be an open container (as required in claim 13).

Neumeyer discloses a seed hopper 14 and granule storage hopper 12 that comprises a combined two-chambered container 12,14 (as required in claim 12) and (2) the two-chambered storage container 12,14 being an open container 12,14 (as required in claim 13).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have utilized a two-chambered container being an open container as shown in Neumeyer in place of the separate containers of Barnes for economy in manufacture.

Claims 12 and 14 rejected under 35 U.S.C. 103(a) as being unpatentable over Barnes in view of Hadley *et al.*

Barnes shows the planter unit, dispensing system and method as noted.

The claims distinguish over Barnes in requiring (1) the seed hopper and granule storage hopper to comprise a combined two-chambered container (as required in claim 12) and (2) the two-chambered storage container to be a closed container (as required in claim 14).

Hadley *et al.* disclose a seed hopper 51 and granule storage hopper 52 that comprises a combined two-chambered container 30 (as required in claim 12) and (2) the two-chambered storage container 30 being a closed container 30 (note Fig. 3) (as required in claim 13).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have utilized a two-chambered container being an closed container as shown in Hadley *et al.* in place of the separate containers of Barnes for economy in manufacture.

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Barnes in view of Canadian reference '436.

Barnes shows the planter unit, dispensing system and method as noted.

The claims distinguish over Barnes in requiring the metering gate to be electronically operated.

Canadian reference '436 discloses a metering gate 20 that is electronically operated by 40.

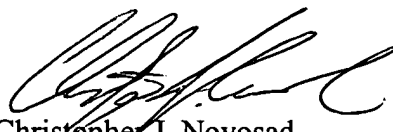
It would have been obvious to one of ordinary skill in the art at the time the invention was made to have utilized electronics as shown in Canadian reference '436 to operate the metering gate 46 of Barnes for ease of use.

Art Unit: 3671

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher J. Novosad whose telephone number is 703-308-2246. The examiner can normally be reached on Monday-Thursday 5:30am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Will can be reached at 703-308-3870. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Christopher J. Novosad
Primary Examiner
Art Unit 3671

November 5, 2004